

**ABSTRACT**

A layer 2 switch network system includes a terminal, an edge switch, and a radius server that notifies the edge switch of a temporary MAC address allocated to the terminal. the edge switch stores therein swap data for associating the temporary MAC address with a real MAC address. when receiving a MAC frame from the terminal, the edge switch replaces the real MAC address of a source set in the mac frame with the temporary MAC address of the source. when transmitting a MAC frame to the terminal, the edge switch replaces the temporary MAC address of a destination set in the MAC frame with the real MAC address of the destination.